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(For details see pp. 9-10)

Business activity in Oregon remained high during October, although employment in the lumber and wood products industry and in agriculture were both about 5,200 less than at the same time a year ago. The expansion in retail trade, service, finance, and government employment nearly offset the loss in the state's two basic industries. Unemployment rose to 31,400, about 30 per cent above that of a year ago.

For the first time this year bank debits are more than one per cent below those of the same month a year ago, and Portland area debits were down almost as much as those of the state as a whole; in fact, if a comparison of debits is made between October and September of 1960, instead of between October of 1960 and of 1959, bank debits slipped slightly more in the Portland area than in the rest of the state.

Building permits indicate that building will hold up well during the next few months.

* * * .

- **Cash receipts from farm marketing** for September were 10.4 per cent below those of the same month a year ago, and for the first nine months of 1960 the total was 5.7 per cent below that of those same months in 1959.

- **Construction contracts** awarded in Oregon in September 1960 totaled $30,140,000, an increase of 19 per cent above the total for September 1959. The cumulative total for the first 9 months of 1960 shows an increase of 4.3 per cent over that for the same period in 1959.

- **Average weekly earnings** of production workers in October were $95.17, a drop of $2.19 from those of September 1960. In October 1959 the average weekly earnings were $96.08.

- **The index of man hours** in manufacturing dropped from 98.5 in September to 90.0 in October, corresponding primarily to a decrease in the number of production workers from 131,100 in September to 122,100 in October.

- **Business failures** in October in Oregon totaled 60 with $1,374,000 in liabilities. For the first ten months of 1960 the totals are 463 failures with $11,422,000 in liabilities; for the corresponding period last year the totals were 391 and $7,641,000; this is an increase of 49 per cent in the cumulative dollar volume of liabilities.

- **Building permits** for October 1960 were 2.8 per cent lower in dollar volume than for October last year. This decrease was reflected in the value of permits for new dwelling units ($6,806,686 in October 1960 and $8,118,443 in October a year ago), although the total number of units was 588 as compared with 557 in October 1959.

A Ten-Year Forecast For Imported Hardwood Plywood

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The objective of this paper is the preparation of a forecast of the quantity of hardwood plywood imported into the United States. A brief explanation or definition of hardwood plywood is in order prior to proceeding to the forecasting.

Plywood consists of panels that are usually made up of layers of wood veneer bound together by an adhesive. Usually the panel is constructed of an odd number of plies, with the grain of any one ply running at right angles to that of adjacent plies. Some of the thicker plywoods (5/8" or over) consist of a lumber core placed between outer layers of veneers.[1] Depending upon the species of wood used in the face ply, plywood may be lighter softwood or hardwood plywood. "Hardwood" is a general term used to designate lumber produced from broad-leaved deciduous trees in contrast with softwood produced from evergreen or coniferous trees.[2] The principal hardwood plywood manufactures from domestically grown wood are gum (including tupelo), birch, oak (red and white), maple, walnut, ash, beech, cherry, elm, magnolia, and sycamore.

The standard grading of hardwood plywood is based on the quality of wood in the face and back ply of a finished panel. There are four basic grades, ranging in order from No. 1, or A, good (best) to No. 4, or D, reject grade (poorest), generally accepted in the United States.[3] Commercially graded hardwood plywood is used principally for furniture, cabinets, paneling, doors, home and store fixtures, trailers, and industrial uses.[4] It should be mentioned that there is another grade of hardwood plywood not specified by the Bureau of Standards and different from the four commercial grades described above. This is called contained type and is made especially for use in the manufacture of boxes and shipping containers. This is not included, unless specifically mentioned as "container and packaging plywood," in the terms "hardwood plywood" and "ordinary hardwood" in the remainder of this paper. Container-type hardwood plywood is produced predominantly in plants which produce container plywood exclusively.[5] It is essentially a

[1] For a fuller explanation about types, grades, thickness, type of adhesive, etc., refer to Section 2, *Hardwood Plywood, Report of Escape-Clause Investigation #39*, U.S. Tariff Commission, p. 423.

[2] Softwood plywood is not covered by this paper. The term "softwood" and "hardwood" relate primarily to the botanical classification of the species of tree. These terms do not pertain directly to the density of the wood itself.

[3] Refer to "standard grade" on page 7, *Hardwood Plywood, Report on Escape-Clause Investigation # 77*, U.S. Tariff Commission, for fuller explanation.

[4] The four numbered grades are specified by the U.S. Bureau in its bulletin, "Commercial Standard Hardwood Plywood, CS 35-49 and CS 35-56."

[5] In recent years about 80 per cent of the container-type plywood has been manufactured in plants producing that type exclusively in the United States; most of the remaining 20 per cent has been produced in plants which produce some ordinary hardwood plywood, but whose output consists predominantly of container and packaging plywood. See page 6, Report #39.

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different product from the non-container plywood and as it has never been imported, container-type plywood was excluded from this forecast.

The hardwood plywood market has recently been strengthened by the style trends toward flat surface in furniture and interior wall paneling. Since 1950, the large displacement of the traditional panel interior doors by the flush door, in which hardwood plywood is customarily used, has been taking place. For an example, the domestic production of flush doors increased from a few thousand in 1947 to an estimated 15 million in 1958.[6] A more recent development in the domestic industry has been the advancement in manufacture of hardwood plywood panel beyond the stage of what is known in the trade "in the white."[7] This is just an example of the general trend for more and wider utilization of hardwood plywood which has been going on for the past decade and is still going on. Following flush doors, paneling, and furniture, the other main uses of hardwood plywood in order of importance are various cabinets such as radio and television, sewing machine, kitchen, electrical, and general utility cabinets.

Now that the definition and the use of hardwood plywood have been given, it may be appropriate next to examine briefly the past data and discuss production, consumption, and imports in order to choose the suitable method of forecasting.

Production

Information on production was collected first in 1929 and again in the Census of Manufactures for the years 1939, 1947 and 1954. A *Facts for Industry* series was conducted by the U.S. Department of Commerce during the war years beginning with 1941, and those data appear in a series designated as 16-3. The survey was conducted on that basis until September, 1945. Until 1951, except in 1947, the Bureau of Census discontinued collecting information on hardwood plywood. With respect to "captive production," that series was discontinued with the collection of the data for the year 1955.[8] Therefore total quantity for each year had to be estimated partly on the basis of past available ratio of "captive production" to the total production.[9] Table 1 shows the production of hardwood plywood by class groups in specified years from 1937 to 1959.

TABLE 1

HARDWOOD PLYWOOD: PRODUCTION BY CLASS GROUPS, SPECIFIED YEARS 1937 TO 1959
(in thousands of square feet, surface measure)

Year	Ordinary Hardwood Plywood (1)					
	Market (2)		Captive (3)			Total
1937		395,400	(4)	-----	(4)	-----
1942	(4)	-----	(4)	-----	(4)	-----
1943	(4)	-----	(4)	-----		705,798
1944	(4)	-----	(4)	-----		676,134
1947		726,738	(4)	-----	(4)	-----
1951	(5)	805,249	(5)	367,760		1,173,009
1952	(5)	794,857	(5)	381,490		1,176,347
1953		819,107		436,539		1,255,646
1954		755,464	(6)	377,000	(7)	1,132,464
1955		933,948		441,766		1,378,714
1956		886,640	(8)	455,900	(8)	1,342,540
1957		797,125	(8)	389,600	(8)	1,186,725
1958		792,645	(8)	393,200	(8)	1,185,845
1959	(9)	960,762	(10)	485,769	(11)	1,446,531

(1) All grades and types other than container and packaging plywood.
(2) The term "market" is used to identify that portion of ordinary hardwood plywood production that was sold by producing plants.
(3) "Captive" is used to identify that portion of ordinary hardwood plywood production that was consumed by producing plants.
(4) Not available. (Series 16-3.)
(5) Estimates based on U.S. Bureau of the Census reports of percentages of production (excluding container and packaging plywood) distributed among market and captive classes for the last six months.
(6) Estimate of captive production (not reported by the Bureau of the Census) based on trend between 1953 and 1954 as indicated in reports to the U.S. Tariff Commission from captive plywood manufacturers that produced 28 per cent of the total captive plywood in 1954.
(7) Include estimate of 377,000 M sq. ft. of captive production.
(8) Partly estimated on the basis of reports to the Tariff Commission accounting for 37.6 per cent of the total production of captive plywood in 1955.
(9) Estimated on the basis of first, second and third quarter of 1959 reported in Facts for Industry 24-F series.
(10) Estimated by using the ratio of 37.6 per cent for captive plywood.
(11) Include captive plywood estimated as described in footnote 10.

Source: Compiled from official statistics of the U.S. Department of Commerce, Facts for Industry series, M-13A and M24F.
The 1929 and 1939 censuses are not used as hardwood and softwood were not separately treated.

Consumption

Consumption of hardwood plywood has expanded continuously since World War II and in 1958 it reached almost twice as high as in 1951 and about one-third higher than in 1954. Table 2 shows data on imports, exports and apparent consumption[10] of all ordinary hardwood plywood (excluding container and packaging plywood) during the period 1951-1959. It is learned that the production did not increase as much as the consumption. On the other hand, the quantity of imported hardwood plywood increased phenomenally. It is quite clear that the rise in consump-

[6] See page 11, Report on "Escape-Clause" Investigation No. 39, U.S. Tariff Commission. The production of 15 million flush doors requires some 525 million square feet of hardwood plywood.

[7] This term "in the white" applies to a sanded panel with no additional finishing treatment, and most hardwood plywood is sold in this condition.

[8] "Captive production": hardwood plywood produced primarily for producer's own use in making such products as furniture, cabinets, and doors. It currently accounts for approximately one-third of the United States production of hardwood plywood. Hardwood plywood produced predominantly or exclusively in the form of plywood for sale in established commercial channels is called "market plywood or production." A report is now being compiled from the 1958 Censue of Manufactures which will show total production, according to the letter received from Mr. M. R. Conklin, Chief of Industry Division, Bureau of Census.

[9] Average ratio of 37.6 per cent was used as in Report #77.

[10] Apparent consumption = production + import — export.

tion was accompanied mainly by this increase of imports. Domestic production also increased, although at a much slower rate. Table 3 shows the ratio of increase in production, imports and consumption.

Imports

From both Tables 2 and 3, it is learned that imported hardwood plywood has risen substantially since 1950 and has supplied an increasing share of the domestic market. Virtually all of the ordinary hardwood plywood is for sale by the importers. In postwar years, imports from Japan, consisting chiefly of lauan[11], have increased more rapidly than imports from other countries. Door skins constituted a substantial proportion of the hardwood plywood shipped to the United States.[12] The Japanese Plywood Exporters Association was organized early in 1955 consisting of members supplying more than 95 per cent of Japan's exports and the export quota was voluntarily imposed.[13] As a result of Japan's export quota, the proportion of imported hardwood plywood from Japan declined but the total quantity of imported plywood in 1959 has reached an all time high record.[14] During 1957 and 1958, United States importers and consumers of Japanese plywood were unable to meet their demands. The quantity of imported plywood from all countries including Japan in 1958 has increased more than 66 million square feet, while that of Japan has dropped by about 10 million square feet. Table 4 shows this change. This shortage resulted in a sharp increase in Japanese exports of lauan veneer to the United States from 5 million square feet in 1957 to 199 million square feet in 1958.[15] It also resulted in expansion of the production of lauan plywood for export to the United States in the Philippines and Formosa.[16] This fact seems to indicate that the demand for imported hardwood plywood, specifically for lauan plywood, continued to be very strong. As has been mentioned previously, the market for hardwood plywood has been favorably influenced by the style trends toward flat surface in furniture and interior wall paneling since 1950. Lauan plywood has certain characteristics not generally found in other imported or domestic plywood, particularly in the manufacture of door skins and other natural finish and painted panels for which the demand has risen phenomenally in recent years. No other plywood available at anywhere near the price of lauan plywood is equally satisfactory.[17] The United States Tariff Commission states in its report No. 77 on the Escape-Clause Investigation that the imported hardwood plywood during the past decade has been supplemental to a significant extent to the domestic supply. The report further states that the great expansion in consumption of hardwood plywood in the production of flush doors would not have been possible if producers had been dependent entirely on domestic plywood.

The Method of Forecasting

The statistics of past production and consumption have been presented and examined. Before proceeding to the forecasting, it may be appropriate to discuss briefly the method that is going to be used and the basic attitude of this paper toward undertaking the forecasting of imported

[11] This is hardwood and called Philippine Mahogany. No lauan timber is grown commercially in the United States.

[12] See page 18, Report #77.

[13] See pages 19-21, Report #77. For detailed information on Japan's export quota for plywood, see *Foreign Commerce Weekly*, Nov. 21, 1955, p. 8; Apr. 23, 1956, p. 8; July 30, 1956, p. 6; July 8, 1957, p. 8; Sept. 9, 1957, p. 6; Oct. 28, 1957, p. 7.

[14] See Table 2.

[15] See Table #11 in Report #77.

[16] See p. 32, Report #77.

[17] *Ibid.*, p. 31.

TABLE 2

ORDINARY HARDWOOD PLYWOOD: U. S. PRODUCTION, IMPORTS, EXPORTS, AND APPARENT CONSUMPTION, 1951-1959

Year	Production 1000 sq. ft. (1)	Imports 1000 sq. ft. (2)	Exports 1000 sq. ft. (3)	Apparent Consumption 1000 sq. ft. (4)	Ratio of Imports Production Percentage	Ratio of Imports Consumption Percentage
1937		4,000	1,859			
1947		26,000	68,629			
1949		18,000	584			
1950		58,076	565			
1951	1,173,009	66,690	553	1,239,217	5.7	5.4
1952	1,176,347	84,814	260	1,261,018	7.2	6.7
1953	1,255,646	218,763	463	1,474,046	17.4	14.8
1954	1,132,464	426,064	431	1,558,097	37.6	27.2
1955	1,378,714	617,937	325	1,996,326	44.8	31.8
1956	1,342,540	695,516	496	2,037,560	51.8	34.1
1957	1,186,725	846,500	393	2,032,841	71.3	41.6
1958	1,185,845	909,021	1,129	2,093,737	76.7	43.4
1959	1,446,531	1,337,522 (5)	(6)	2,278,000	86.7	(6)

(1) See Table 1. (2) Bureau of the Census FT-110, Forest Products Division, U.S. Department of Commerce.
(3) Foreign Trade Information on Plywood. Microprint 57 (10633), Forest Products Division, Dept. of Commerce.
(4) Production plus imports minus exports.
(5) Estimated from statistics of Forest Products Division, Business and Defense Service Administration, U.S. Dept. of Commerce, 1959, 1st and 3rd quarters.
(6) Not available.

hardwood plywood. The primary concern of the forecaster is to choose the most appropriate method. as there is no single method suitable for all problems. Firstly, it seems quite appropriate to treat imported hardwood plywood as an industry itself, not as a part of the domestic industry. An attempt will then be made to treat it as one of the important components that goes into the make-up of the total demand and consumption. Secondly, this industry (imported hardwood plywood) will be considered as a segment of the total economy.[18] Therefore, the total economy will be forecast first and then the methods applicable to translating the total forecast into specific subsidiary parts, i.e., imported hardwood plywood, may be used.

A Long-Range (Ten-Year) Forecast

In order to determine the state of health of the industry for the next decade, it will be necessary to project the demand for hardwood plywood consumption. This is and will be a prime determinant of both the domestic production and the imported plywood. As has been explained above, major outlets for hardwood plywood have been flush door manufacturers, furniture manufacturers, cabinet manufacturers, and more recently, mobile home (trailer) builders. Since 1950, the demand for hardwood plywood has increased tremendously. More and more hardwood plywood panels are being used, not only for residential construction but also for office buildings, hospitals, schools, etc. "Market production" currently accounts for two-thirds of the total production. This is mostly being sold through established commercial channels to manufacturers of doors, panels and other building materials. The remaining one-third of hardwood production, being "captive production," is consumed by manufacturers whose prime products are, in the order of importance, furniture, cabinets, and flush doors. On the other hand, virtually all of the ordinary hardwood plywood imported is for sale by the importer, only a negligible portion being imported directly by concerns for use in further production.[19] Table 5 shows that in 1958 about 43 per cent consisted of door skins and 46 per cent consisted of stock panels clearly indicating that almost all the imported plywood goes to the construction industry. From this it is concluded that construction is a prime component of the demand for hardwood plywood. The elimination of the furniture industry may be justified, as only less than one-fifth of the total quantity[20] is consumed by it. Moreover, the production of furniture has been quite constant and, in fact, has increased only 20 per cent without experiencing any major fluctuation in the past decade.[21]

The following equation is used to find correlation between hardwood plywood consumption (P) and total new construction (C).[22]

Equation No. 1: $P = 12618 + 125C$
(Base year for the calculations was 1951).

The coefficient of correlation, r, between plywood consumption and new construction is shown in equation No. 2.

Equation No. 2: $r = .925$

From the above equation No. 2, it is found that there is a fairly high correlation between consumption and total new construction. In other words, given the total new construction, hardwood plywood consumption can be determined within a reasonable range of accuracy. The next step to be taken would be to find the determinant of the total construction so that the consumption can be obtained. Since new construction as a whole in the total economy was chosen, the reasonable procedure seems to be to find the correlation between the construction (C) and GNP, symbolized as G. The same equations which were used for consumption may be applied to find this. The following results were obtained which seem to justify the procedure.

Equation No. 3. $C = -6.05 + 0.097G$
Equation No. 4. $r = 0.96$

For the past decade GNP has been increasing at an annual rate of 4.2 per cent.[23] This, of course, does not necessarily mean that GNP will continue to grow in the next decade at the same rate. However, it can be safely stated that the projection of GNP at the same growth rate will not be wide of the mark. The United States now knows enough about its economy and has built so many safeguards that it may never again fall into a major depression similar to the 1930's. Indications are that, with this increased stability, the United States economy in the next decade may substantially increase the rate of growth in all sectors of economy. In this paper, however, GNP growth rate of 4.2 per cent was used to be on the conservative side.

At this rate, GNP in 1970 will be reaching 750 billion dollars in 1959 dollars. Given the GNP of 750 billion dollars, the total construction in 1970 will be obtained by using equation No. 3.

$$C = -6.05 + 0.097\ (750)$$
$$= 66.7 \text{ (billion dollars)}$$

[18] There is a method which treats an industry to be forecast as an independent entity not subject to close control by other parts of the economy. In this case, any of the methods applicable in general may be used. For a fuller explanation, refer to Chapter 15, particularly pp. 518-520, of *Economic Forecasting* by Lewis Bassie, McGraw-Hill, 1958.

For discussions of various methods suitable for forecasting industry, refer to Chapter 15, *Economic Forecasting* by Bassie; Chapter 2 (pp. 26-49), *Managerial Economics* by M. H. Spencer and L. Siegelman; and Chapters 7, 8, and 15, *Business Forecasting* by F. D. Newberry, McGraw-Hill, 1952, to which this paper owes a great deal.

TABLE 3

RATIO OF INCREASE IN HARDWOOD PLYWOOD PRODUCTION, IMPORTS AND CONSUMPTION (1951-1959)
1951 = 100

Year	*Production*	*Imports*	*Consumption*
1951	100.0	100.0	100.00
1952	100.0	127.2	101.75
1953	107.0	328.0	118.94
1954	96.5	638.8	125.73
1955	117.5	926.5	161.09
1956	114.5	1,042.9	164.42
1957	101.2	1,269.3	164.04
1958	101.1	1,363.0	168.95
1959	131.5	2,005.0	....(1)

(1) Not available. Source: Compiled from Table 2.

[19] See Report #77, p. 16.

[20] Domestic production plus the imported hardwood plywood.

[21] See *Federal Reserve Bulletin*, Dec. 1959.

[22] Calculations were made based on new construction data and on consumption figures from *Economic Report of the President*, 1960.

[23] GNP data were obtained from *Economic Report of the President*, 1960.

Given the above total new construction, the consumption of hardwood plywood in 1970 is obtained by using equation No. 1.

$$P = -2618 + 125\ (66.7)$$
$$= 5719 \text{ (million sq. ft.)}$$

The above consumption will be reached in 1970 provided that the present correlation between GNP to construction and construction to consumption hold. It may be argued that the present rate of increase in consumption in relation to total construction for the coming decade will not be sustained as the tremendous upsurge in the 1950's could be attributed to more and wider use of hardwood plywood introduced during this period. For this, however, there is a strong counter factor—population increase. The 22 to 24 age group is projected to increase in 1970 by more than 50 per cent. The total of age groups 22 to 24 and 25 to 34, which will most likely be a major force for residential construction increase at that time, are projected to increase about 12 per cent.[24] This is a considerable increase and it certainly will have to be taken into consideration for any long-range forecasting concerning construction. This long-range (ten-year) forecast considers population increase, particularly the increase of the above-mentioned age groups, as a factor which will hold consumption from falling below the present rate.

The forecasted quantity represents a little more than twice the quantity of consumption of 1959, or an eight per cent annual increase. How much of this will be supplied by imported plywood is the final and key question in the forecast. An attempt was made to find the correlation between the domestic production (D) and consumption (P). The following equation shows that there is no close correlation between the two variables.

Equation No. 5. $D = 0.2455 + 0.53\ P$

Equation No. 6. $r = 0.52$

The above result seems to eliminate the possibility of obtaining the quantity of imported hardwood plywood by "market-share" method. For this method, firstly, there has to be a reasonably close correlation between total consumption and domestic production, and, secondly, between the latter and imported hardwood plywood. However, the coefficient of correlation is far too low to be dependable for further calculation. In other words, the domestic production has not been increasing at the same rate as the total consumption. In view of this, an attempt to find the correlation between consumption (P) and imported hardwood plywood (F) was made. By using the same formula, the following equations were obtained.

Equation No. 7. $F = -948 + 0.834\ P$

Equation No. 8. $r = 0.979$

Equation No. 7 seems quite acceptable, as it has a very high coefficient of correlation for our objective of making a forecast of imported hardwood plywood given the total consumption. Based on the above equations, it may be stated that imported hardwood plywood during the past decade has been catering to the market which it has created itself. However, there are some facts that cast doubts as to whether the same rate of increase for imported plywood can be applied for forecasting the next decade. The rapid increase of the 1950's was because of the following reasons as has been already partly touched upon.

1. The use of lauan plywood which makes up the bulk of imported plywood did not become very popular until 1950. The use of the flush door, the product which sparked the postwar blossoming of the market, has continued its growth pattern since then. In 1947 a few hundred thousand were produced but already in 1955 twelve to fifteen million, requiring more than five million square feet of plywood, were produced.[25]

2. Total imported hardwood as late as 1949 amounted to only 5.4 per cent of the total United States consumption. Within about ten years imported plywood supplied more than 40 per cent. In looking at Table 2, it is found that the quantity kept rising without being much affected by the recessions. For example, industrial production declined 12.4 per cent in 1958 but the imports kept increasing although at a slightly lower rate than in previous years. Domestic industry, on the other hand, declined to the level almost of 1951 in the same period.

3. The years 1951-1954 might well be termed as an introductory period for the imported plywood market which

[24] See Table B-2, Population table, p. 85, *Economic Report of the President.*

[25] Richard D. Behm, "Hardwood Plywood's Role," *Timberman,* Jan. 1956.

TABLE 4

U. S. IMPORTS OF HARDWOOD PLYWOOD BY COUNTRY OF ORIGIN
(in M sq. ft.)

Country	*1955*	*1956*	*1957*	*1958*
Japan	428,555	527,280	679,706	669,566
Canada	98,544	80,742	64,104	41,992
Finland	40,531	33,672	22,553	24,098
Taiwan	81	416	3,359	23,441
French Equatorial Africa	9,239	13,087	10,055	15,461
Surinam	3,919	3,894	5,496	5,249
Netherlands	2,309	2,711	2,776	5,191
Italy	4,847	3,068	1,174	4,592
West Germany	3,674	4,733	5,468	3,963
Philippine Republic	9,784	14,905	33,204	97,402
All other	16,453	11,007	13,067	16,210
Total	617,936	696,515	840,962	907,165

Source: U.S. Department of Commerce, Business and Defense Service Administration.

was very favorably influenced by the style trend toward flat surfaces in construction, as has already been explained. However, this favorable factor might not affect the demand at the same rate as it did in the early 1950's. Imported hardwood plywood started as almost a brand new commodity in the late 1940's and early 1950's. There were practically no imports before that time.

4. There have been two investigations by the U.S. Tariff Commission requested by the Hardwood Plywood Institute and its members. Each time, the applications of escape-clause were not recommended.[26] However, their investigations had some indirect effect and resulted in the voluntary imposition of export quota in the major supplying country, i.e., Japan. The effect of the quota seems to have appeared in 1958. Japan's share of the United States imports for the first time dropped.[27] Although the total quantity of imported hardwood kept rising, in 1957 and 1958 the slowing rate of increase can partly be attributed to the quota. In 1959, the quantity of imported plywood reached the highest of all time.

[26] U.S. Tariff Commission, Report on Escape-Clause Investigation, Reports #39 and #77.

[27] *Ibid.*, Report #77, Section on "Japan's Quota."

TABLE 5

ORDINARY HARDWOOD PLYWOOD: PERCENTAGE DISTRIBUTION OF SALES, AND AVERAGE SALES VALUE, OF U.S. MARKET PRODUCTION AND U.S. IMPORTS FOR CONSUMPTION, BY TYPES OF PANELS, 1955-1958

Item	*1955*	*1956*	*1957*	*1958*
Market production—percentage of quantity sold:				
Door skins	11.5	14.9	15.1	16.4
Stock (standard) panels	42.3	41.1	41.7	41.2
Cut-to-size panels	46.0	43.7	42.2	41.0
Other	.2	.3	1.0	1.4
Total	100.0	100.0	100.0	100.0
Average sales value per 1,000 square feet	$198	$204	$211	$198
Imports for consumption:				
Percentage of quantity sold:				
Door skins	64.0	52.7	49.3	49.3
Stock (standard) panels	29.8	40.6	44.8	46.1
Cut-to-size panels	6.1	6.6	5.8	4.5
Other	.1	.1	.1	.1
Total	100.0	100.0	100.0	100.0
Percentage of dollar value sold:				
Door skins	46.1	38.0	34.0	36.0
Stock (standard) panels	44.6	54.7	60.3	59.0
Cut-to-size panels	9.2	7.3	5.6	4.9
Other	.1	—	.1	.1
Total	100.0	100.0	100.0	100.0
Average sales value:				
Door skins—per 1,000 sq. ft.	$ 78	$ 77	$ 71	$ 75
Stock (standard) panels—per 1,000 sq. ft.	162	144	139	131
Cut-to-size panels—per 1,000 sq. ft.	162	118	99	111
Other—per 1,000 sq. ft.	80	81	127	120
Average, all types of panels—per 1,000 sq. ft.	108	107	103	102

Source: Compiled from data supplied the U.S. Tariff Commission by the producers and importers.

To conclude, the long range forecast for ten years for imported hardwood plywood is as follows:

Forecast for 1970

1. GNP = 750 billion dollars.
2. Total new construction = 66.7 billion dollars.
3. Total consumption of hardwood plywood = 5,719 million sq. ft.
4. Imported hardwood plywood = 3,820 million sq. ft.

$$F = -948 + 0.834\ (5{,}719)$$
$$= 3820$$

The above estimated quantity will be reached in 1970 which represents the annual increase of 7.5 per cent. The quantity will be reduced should rates of duty be raised to put the imported plywood on the same price level or above that of domestic hardwood plywood. However, the important thing to be mentioned is that the curtailment of imports would by no means result automatically in an increased demand for domestic plywood as there are many substitutes.[28]

[28] *Ibid.*, Report #77, p. 34, for a more complete study on this point.

EDITOR'S NOTE: Shojiro Makino is a candidate for the Master's degree at the University of Oregon. It was in partial fulfillment of the requirements for this degree that he wrote the above paper for Professor Ballaine's class in managerial economics. Mr. Makino is now employed as graduate assistant for Dean Lindholm's class in business cycles. To further his education, Mr. Makino has been granted a leave of absence by his regular employer, E. J. Griffith & Co., of Okinawa. He is assistant manager for the building materials department of this import-export company which is a subsidiary of Getz Brothers. Mr. Makino was born and educated in Tokyo, Japan and in 1951 received his Bachelor of Arts degree in Economics from Keio University. He is a tennis player of some note. In the past 13 years he has competed in several major tournaments in Japan. Colleagues on the Oregon campus testify to his skill.

A recently completed project of the Bureau of Business Research is an industrial promotion pamphlet for the City of Springfield designed to present a factual background of the community to industrialists and business men contemplating expansion in new markets. The pamphlet contains statistics from such areas as population, labor force, wage scales, schools, taxes, transportation, recreation, and natural resources, to mention only a few items. The information is presented in a folder of some 50 separate sheets so that any page may be easily removed and replaced with the most recent figures. Interested persons may address requests for copies to Springfield Chamber of Commerce, 412 Main Street, Springfield, Oregon.

Consumers of electric energy in Eugene, Oregon, pay $3.00 for 250 kilowatt-hours for such home uses as lighting, refrigeration, and cooking, according to a report of the Federal Power Commission. This is the lowest electrical rate in the state. The highest rate, $6.98 for the same amount of energy, is paid in Nyssa and in Ontario.

Business Ad Graduates Respond to Dean's Inquiry

The School of Business Administration at the University of Oregon is a professional school and necessarily must offer to students the best possible training for a career to be practiced in contemporary society. The faculty of the school gives continued scrutiny to the curriculum and from time to time makes revisions designed to meet modern needs. To this end, the graduates of the school were recently asked to assist in an evaluation of the school's program.

In August of this year Dean Richard W. Lindholm conducted a poll of graduate opinion. Questionnaires were sent to approximately 5,000 Business Administration alumni whose addresses were on file with the University Alumni Association. Of the 5,000 sent out, some 1,400 have been returned. There is no reason to believe that the returns constitute a representative sample. They are, rather, from a group who are interested in their University connection. At the time when 1,290 questionnaires had been returned, a 10 per cent sample was drawn; this sample should be reasonably representative of the questionnaires returned. The figures which follow are from this sample.

It appears to be the overwhelming opinion of the alumni that their business administration classes have been of substantial benefit to them in their work. In fact, almost half said that if they had their life to live over, they would take even more business administration courses. This attitude is probably a reflection of the fact that a high proportion of the respondents are pursuing work in the field for which they prepared when at the University.

Over two-thirds of the replies came from residents of Oregon and nearly half of these were from the Portland Metropolitan Area. Only about one-seventh of the total were from Eugene, where the University is located. Over half of the replies outside Oregon came from California.

The most recent graduates demonstrated the most interest in the questionnaire; nearly half of the replies came from those who had graduated in the decade between 1950 and 1960. About the same proportion of interest was shown by those graduates who had spent all four years of their college career on the campus in Eugene.

The tables which follow present details of the replies in the ten per cent sample. The title for each section is similar to the phrasing of the original question; they do not necessarily follow in the same order in which they appeared in the questionnaire.

Have Your Business Administration Classes Been of Benefit to You?

Substantial	102
Little	25
None	1
No answer	1

If You Were to Live Your Life Over, How Much Business Administration Work Would You Take?

About the same again	60
Less	21
More	48

Is Your Work in the Same General Field for Which You Prepared When at the University?

Yes	96
No	15
In part	14
No answer	4

Residence

Total in Oregon		82
Metropolitan Portland	39	
Eugene	18	
Salem	3	
Medford	2	
Western Oregon, except above	11	
Eastern Oregon	9	
Total outside Oregon		47
Washington	5	
California	26	
Alaska	1	
Hawaii	1	
Canada	1	
New England	3	
East North Central	3	
West North Central	1	
East South Central	1	
Mountain states	5	

Decade of Graduation From University of Oregon

Prior to 1920	0
1920-1930	6
1930-1940	25
1940-1950	26
1950-1960	62
1960	1
Did not graduate	9

Number of School Years on the Eugene Campus

1	13
2	28
3	23
4	61
5	4

Present Occupation

Persons having senior administrative responsibilities, either in the top management echelon of large corporations, or owner-managers of medium sized companies	26
Managers of departments, local units of chain stores, bank managers, owner-managers of small companies	37
Accountants	18
Professional men, lawyers, university professors, ministers, all reporting that they use their business training	5
Engaged in clerical work in which business training is now used in varying degree	31
Housewives	8
Retired	1
Law school student	1
Now in armed forces	1
No answer	1

Would You Be Interested in a Regular Business Administration Alumni Newsletter?

Yes	105
No	17
No answer	7

Have You Attended Business Ability Development Programs?

Yes	29
No	99
No answer	1

Are You Interested in Attending Such a Program?

Yes	56
No	43
Don't know	20

Specialist in International Business Joins BA Faculty

Sioma Kagan has joined the faculty of the School of Business Administration as professor of international business. Before coming to the University of Oregon Dr. Kagan was staff economist for the Joint Council on Economic Education in New York and was, just prior to that position, an associate professor of economics at Washington University of St. Louis.

Dr. Kagan has worked with the United Nations, the United States government, and independent research organizations. Recent assignments for these agencies include a trip around the world as economic consultant to the National Planning Association; activity in the field of management education for the Executive Development Program of the Graduate School of Business, Arden House at Columbia University; the advanced management courses for the Management Research and Development Institute of the General Electric Company at Crotonville, New York; and Prudential's Executive Program.

Dr. Kagan spent the month of May of this year in the Hawaiian Islands lecturing on Oahu, Hawaii, Kauai, and Maui islands at the request of Hawaii's State Department of Public Instruction. In his position as staff economist for the JCEE Dr. Kagan lectured extensively at such institutions as the University of Texas, New York University, University of Rochester, and the Commonwealth Club in San Francisco. Other lectures have been made at the United Nations, Vanderbilt University, and the Economic Development Institute of the International Bank for Reconstruction and Development.

Dr. Kagan currently holds a three-year appointment (1959-1962) from Columbia University as University Seminar Associate on Pre-Industrial Areas.

From 1946 to 1948 Dr. Kagan was a member of the UN Telecommunications Board and UN Economic Affairs Officer. In this latter post he was instrumental in setting up the Economic Commission for Asia and the Far East in China. He has served as consultant to the International Basic Economy Corporation and the Mutual Security Administration.

Dr. Kagan received his initial training in electrical engineering at the Technical University in Berlin. He was one of the founders and partners of an electrical manufacturing firm in Paris and lecturer at the College de France. During World War II he served as Chief Signal Officer of the Free French Forces; in the course of this service he planned and put into operation "Radio Brazzaville" which was the voice of Free France in French Equatorial Africa. He was decorated with the Legion of Honor for his wartime service.

In 1943 the French Government appointed Dr. Kagan Chief of Mission and Member of the Boards of its Supply Council in Washington, D.C. After the war he continued his graduate study in the economics of under-developed countries; he received his Master of Arts degree from American University and a Doctor of Philosophy degree in economics from Columbia University. Dr. Kagan was born in Riga, Russia, in 1907.

Dr. Kagan is the co-author of *Report of the Advisory Committee on UN Telecommunications*, UN, 1947. As economic adviser to the International Development Advisory Board, Dr. Kagan was one of the authors of *Partners in Progress* (Rockefeller Report), 1951 and *An Appraisal of Ireland's Industrial Potentials*, 1952. He worked on a National Planning Association report, *Stanvac in Indonesia* (A Case Study in NPA's series on U.S. business performance abroad), 1957. He is also the author of numerous articles on technical and economic subjects. He has served, too, as consultant to the International Basic Economy Corporation and the Mutual Security Administration.

Dr. Kagan's professional affiliations include membership in the American Economic Association, the Academy of Political Science, the Council on Foreign Relations, the Council for Middle Eastern Affairs. He was elected a Fellow of the Population Reference Bureau and member of the honorary economics fraternity Artus (Omicron Delta Gamma).

Interest in the Cuthbert article on Downtown which appeared in the September *Review* has been wholly gratifying. To date, there have been over 500 requests for extra copies from such varied groups as citizens committees in Oregon and the Middle West, graduate classes studying city planning and professors teaching city planning. One advertising manager from a city of 50,000 population requested 100 copies in order to hand the article to each tenant and each landlord in the downtown business district of his city.

RESIDENTIAL BUILDING PERMITS FOR OREGON

	Oct. 1960 New Dwelling Units		*Sept. 1960* New Dwelling Units		*Oct. 1959* New Dwelling Units	
	No. of Units	*Value*	*No. of Units*	*Value*	*No. of Units*	*Value*
Albany	5	$58,000	5	$61,000	4	$45,000
Baker	4	52,500	1	10,000	3	29,500
Beaverton	15	229,200	12	171,690	8	123,248
Bend	3	32,000	3	38,300	9	95,000
Coos Bay	1	15,000	4	54,000	6	89,500
Corvallis	8	98,000	10	108,000	18	254,500
Eugene	86	606,190	79	575,300	32	465,520
Grants Pass	9	118,000	4	34,750	3	45,000
Hillsboro	5	48,600	9	111,000	16	250,500
Klamath Falls	5	68,500	2	21,000	5	86,000
LaGrande	3	27,775	3	52,870	3	40,5[illegible]
McMinnville	2	24,000	1	25,000	4	55,600
Medford	6	59,000	14	146,500	18	244,500
Milwaukie	7	94,100	22	297,609	15	92,800
North Bend	6	72,784	0	.....	1	9,584
Pendleton	4	46,000	5	81,000	0	.....
Portland	55	625,850	157	1,979,210	68	1,124,495
Roseburg	1	6,000	6	73,658	3	32,990
Salem	17	179,875	21	228,700	13	136,000
Springfield	17	133,928	7	55,432	2	13,036
The Dalles	2	34,000	3	60,000	1	15,000
Clackamas County	38	560,400	50	612,675	34	466,800
Douglas County	7	49,720	13	135,396	1	6,272
Lane County	68	756,340	84	891,703	49	564,758
Marion County	32	384,855	49	541,200	46	509,871
Multnomah County	106	1,574,914	119	1,760,997	122	2,470,689
Washington County*	94	1,625,200	90	1,353,697	n.a.	n.a.
114 other communities	76	851,155	103	1,198,959	73	851,728
Totals	588	$6,806,686	786	$9,328,940	557	$8,118,443

* Washington County data is not included in the totals because of insufficient data.
n.a.: Not available.
This report for the month of September appears on page 9 of this issue.

OREGON STATISTICAL REVIEW

Electric Energy. The Public Utility Commissioner of Oregon reports that during September 1960 the total kilowatt hours of electricity sold by privately owned electric utilities in Oregon was 7 per cent above the total in September 1959. Total sales for the twelve-month period ending September 30, 1960 were 9 per cent above sales for the same period ending one year earlier.

Life Insurance Sales. The Life Insurance Agency Management Association reports that for September 1960 sales of ordinary life insurance in Oregon were 8.5 per cent ($3,453,000) lower than in August 1960 and 4 per cent lower than in September of last year. The national figures show a 7.2 per cent drop in comparison with those of August 1960 and a 1 per cent increase over those of September 1959.

Cash Receipts from Farm Marketing. The cumulative receipts from the sale of farm produce were $292,737,000 for the first 9 months of 1960. This is a drop of 5.7 per cent from the 1959 cumulative total of $310,349,000 for 9 months. The following table shows the monthly data in thousands of dollars, as reported by the United States Agricultural Marketing Service.

	1960	1959		1960	1959
Jan.	$29,796	$33,479	July	$37,503	$45,194
Feb.	23,076	21,901	Aug.	54,175	51,956
Mar.	21,205	24,117	Sept.	54,875	61,247
Apr.	20,775	21,693	Oct.	----	41,256
May	19,964	19,148	Nov.	----	29,153
June	31,368	31,614	Dec.	----	39,359

Banking. Loans, investments, and deposits of Oregon banks that belong to the Federal Reserve System are shown below in millions of dollars:

	Sept. 1960	Aug. 1960	Sept. 1959
Loans	$ 950	$ 973	$ 906
Investments	618	598	668
Deposits	1,706	1,712	1,758

Lumber. The figures below were reported by the West Coast Lumbermen's Association. They cover the Douglas fir area of the Pacific Northwest and are in thousands of feet, board measure.

	Oct. 1960	Sept. 1960	Oct. 1959
Average weekly production	142,677	151,423	166,218
Average weekly orders	138,751	142,464	146,992
Unfilled orders, end of month	434,047	447,233	553,664
Lumber inventory, end of month	1,104,901	1,101,599	904,012

Department Store Sales. Figures on department store sales are compiled by the Federal Reserve Bank of San Francisco for Oregon, the Portland area, the Eugene area, and Salem. The data are released for Portland each week and once a month for all three cities and the state as a whole.

The most recent Portland area data are for the week ending November 12, 1960, when sales were 7 per cent below those of the corresponding week in 1959.

Sales for the month of September and for the first nine months of this year have been compared with those for the corresponding periods one year earlier. Percentage changes are shown in the following table.

	Sept. 1960	Jan. 1, 1960 to Sept. 30, 1960
Oregon	− 4	− 1
Portland area	− 5	− 2
Eugene area	− 1	+ 7
Salem	− 2	+ 3

Because the population of Eugene is now 50,179, as shown by preliminary 1960 Federal census counts, the city is classified as a standard metropolitan area. This is reflected in the data on department store sales, which now list figures for the *Eugene area*, not Eugene as was formerly done.

Portland's retail food price index (1947-49 = 100) for September 1960 stood at 121.1. This is an increase of 0.6 per cent over the index for August 1960, but a decrease of 0.1 per cent from that of September 1959.

Advertising linage. The Oregon Newspaper Publishers Association reports that there were 647,601 column inches of local retail advertising in twenty daily newspapers in Oregon for the month of October 1960. This is a drop of 2.4 per cent from the totals for October 1959 when there were 663,377 column inches.

Index of Man Hours in Manufacturing. A reliable index of change in manufacturing activity is the man hours of industrial production workers. The index is computed by the Bureau of Business Research from data supplied by the State Department of Employment (1951 = 100). Figures apply only to personnel engaged in direct manufacturing; sales, office, and general administrative employees are excluded. No adjustment for seasonal variation has been made. The most recent reading for Oregon is for October 1960.

	1960	1959		1960	1959
Jan.	82.9	79.1	July	94.1	100.2
Feb.	84.3	79.3	Aug.	103.5	107.4
Mar.	85.3	83.3	Sept.	98.5	102.9
Apr.	87.9	87.2	Oct.	90.0	97.6
May	89.4	92.1	Nov.	----	94.1
June	94.6	98.6	Dec.	----	89.6

Average weekly earnings of production workers in manufacturing industries in Oregon provide timely information on current trends of labor costs as well as rough measures of average income available for purchasing goods and services. Both aspects of this information make the figures available for consolidations with other data in evaluating the current business situation. Data in the following table are supplied by the Oregon State Department of Employment.

	1960	1959		1960	1959
Jan.	$95.72	$92.72	June	$97.51	$96.81
Feb.	96.78	93.93	July	97.94	96.44
Mar.	96.47	96.17	Aug.	97.85	97.25
Apr.	98.57	96.53	Sept.	97.36	97.12
May	98.79	98.30	Oct.	95.17	96.08

Business Failures. The Dun and Bradstreet report on commercial failures is considered an indicator of business health. The figures for Oregon follow.

	1960		1959	
	Number	Liabilities	Number	Liabilities
Jan.	41	$ 590,000	25	$ 515,000
Feb.	45	1,229,000	38	909,000
Mar.	46	1,414,000	54	1,161,000
Apr.	49	995,000	29	497,000
May	36	1,404,000	42	632,000
June	50	1,295,000	25	765,000
July	27	378,000	52	953,000
Aug.	64	1,746,000	56	1,015,000
Sept.	43	997,000	34	534,000
Oct.	60	1,374,000	36	660,000
Nov.	---	----	39	594,000
Dec.	---	----	41	1,550,000

RESIDENTIAL BUILDING PERMITS FOR OREGON

	Sept. 1960 New Residences		Aug. 1960 New Residences		Sept. 1959 New Residences	
	No. of Units	Value	No. of Units	Value	No. of Units	Value
Albany	5	$ 61,000	31	$ 203,000	13	$ 120,100
Baker	1	10,000	4	24,700	4	50,000
Beaverton	12	171,690	14	205,740	8	115,128
Bend	3	38,300	4	41,500	7	84,500
Coos Bay	4	54,000	1	20,000	5	76,900
Corvallis	10	108,000	9	104,000	66	689,005
Eugene	79	575,300	73	657,830	40	674,800
Grants Pass	4	34,750	4	44,000	1	15,000
Hillsboro	9	111,000	10	121,500	10	204,300
Klamath Falls	2	21,000	2	26,000	4	64,000
La Grande	3	52,870	1	15,300	6	82,078
McMinnville	1	25,000	2	20,500	4	39,000
Medford	14	146,500	8	104,000	16	192,600
Milwaukie	22	297,600	5	76,195	13	180,510
North Bend	---	----	4	55,064	4	46,320
Pendleton	5	81,000	7	77,000	13	129,285
Portland	157	1,979,210	602	7,225,025	89	1,490,135
Roseburg	6	73,658	5	61,444	3	35,500
Salem	21	228,700	258	1,175,000	34	366,269
Springfield	7	55,432	4	39,732	2	22,354
The Dalles	3	60,600	6	90,200	1	10,000
Clackamas County	50	612,675	47	478,600	91	882,025
Douglas County	13	135,396	8	86,997	4	22,243
Lane County	84	894,703	89	950,010	77	863,772
Marion County	49	511,200	74	778,160	59	667,535
Multnomah County	119	1,760,997	104	1,661,555	141	2,597,215
Washington County*	90	1,353,697	128	1,999,835	n.a.	n.a.
114 other communities	103	1,198,959	92	1,390,197	92	984,558
Totals	786	$9,328,940	1,468	$15,733,249	807	$10,701,132

* Washington County data is not included in the totals because of insufficient data.
n.a.—Not available.

Employment. Information on employment in Oregon is reported each month by the State Department of Employment in Salem. The latest figures follow:

	Oct. 1960	*Sept. 1960*	*Oct. 1959*
Lumber and wood products	72,500	75,300	77,900
Food and kindred products	25,000	28,400	24,500
Other manufacturing	50,300	52,700	49,900
Total manufacturing	147,800	156,400	152,300
Contract construction	28,400	29,800	28,000
Retail trade	84,400	86,200	80,000
Government	96,700	95,800	92,300
Other nonmanufacturing	159,700	162,900	154,700
Total nonmanufacturing	369,200	374,700	355,000
Total wage and salary employment	517,000	531,100	507,300

Fir Plywood. The Douglas Fir Plywood Association issues quarterly reports on fir plywood production, orders, and shipments from 146 plants in Washington, Oregon, California, and Montana. Recent census data imply that approximately two-thirds of the production comes from mills operating in Oregon. The totals are in millions of square feet.

	January through October		*Percentage*
	1960	*1959*	*increase*
Production	5,946	5,736	3.7
New orders	5,749	5,696	0.9
Shipments	5,819	5,583	4.2

Construction. The Bureau of Business Research, in cooperation with the F. W. Dodge Corporation, reports September 1960 construction contracts in Oregon had a total value of $30,140,000. This is 19 per cent above the total for September 1959. Comparative data, in thousands of dollars, follow:

	Sept. 1960	*Aug. 1960*	*Sept. 1959*
Nonresidential	$ 9,415	$ 7,305	$ 5,852
Dwelling units	13,685	20,591	15,367
Public works and utilities	7,040	5,432	4,124
Totals	$30,140	$33,328	$25,343

Nonresidential construction totaled 760,000 square feet in September 1960 and 527,000 square feet in September 1959. In September this year contracts were bid for 1,098 dwelling units totaling 1,261,000 square feet. One year earlier there were 1,353 units totaling 1,456,000 square feet.

The cumulative total for the first 9 months of 1960 shows that the value of building contracts in Oregon was 4.3 per cent higher than for the comparable period of the previous year. For the 11 western states the cumulative nine-month total value for this year was 8 per cent below that for 1959. The national total value was 7 per cent lower for 1960 than for the comparable period in 1959. The figures in this paragraph do not include those for public works or utilities.

BANK DEBITS

Bank debits represent the dollar value of checks drawn against the deposit accounts of individuals and business firms. Bank debits are considered good indicators of current business activity. But their value for this purpose can be impaired if they include large checks used to transfer funds for the purchase of certain kinds of capital assets that are not "business activity." Each month the Bureau of Business Research collects data on bank debits from 202 banks and branches.

	Number of Banks Reporting	*Debits Oct. 1960*	*Debits Sept. 1960*	*Debits Oct. 1959*	*Percentage Change Oct. 1960 compared with*	
					Sept. 1960	*Oct. 1959*
Oregon	202	$2,065,647,625	$2,081,625,666	$2,169,467,721	— 0.7	— 4.8
Portland area (Multnomah, Washington, Clackamas, Columbia counties)	68	1,314,456,899	1,327,129,958	1,378,221,540	— 1.0	— 4.6
Mid-Willamette Valley (Polk, Benton, Linn, Marion, Yamhill counties)	40	238,892,417	247,802,914	255,747,734	— 3.6	— 6.6
North Oregon Coast (Tillamook, Clatsop, Lincoln counties)	11	37,086,117	40,178,752	36,021,319	— 7.7	+ 3.0
West Central Oregon (Douglas, Lane, Coos counties)	24	192,066,727	187,918,862	196,331,354	+ 2.2	— 2.2
Southwestern Oregon (Curry, Jackson, Josephine counties)	14	88,353,122	95,307,424	96,510,993	— 7.3	— 8.5
Upper Columbia River (Sherman, Hood River, Wasco, Gilliam, Wheeler counties)	9	31,232,218	31,634,183	33,639,209	— 1.3	— 7.2
Pendleton area (Umatilla, Morrow counties)	8	35,964,941	31,606,383	36,829,375	+13.8	— 2.3
Central Oregon (Deschutes, Crook, Jefferson counties)	5	34,931,451	30,860,694	33,140,340	+13.2	+ 5.4
Klamath Falls area (Klamath, Lake counties)	7	39,418,296	35,116,387	46,551,553	+12.3	—15.3
Baker, La Grande area (Wallowa, Grant, Baker, Union counties)	10	27,546,472	27,351,346	30,493,558	+ 0.7	— 9.7
Burns area (Harney, Malheur counties)	5	25,698,965	26,718,763	25,930,746	— 3.8	— 0.9

BUILDING PERMITS

Building permits are a report of plans rather than of construction in actual operation. Interpretation of these data must allow for time elapsed between the issuing of the permit and the beginning of construction. The information has been collected by the Bureau of Business Research from building departments in local governments.

	New Dwelling Units Oct. 1960	*New Non-Residential Oct. 1960*	*Additions Alterations & Repairs Oct. 1960*	*Totals Oct. 1960*	*Totals Sept. 1960*	*Totals Oct. 1959*
Albany	$ 58,000	$ 43,000	$ 5,525	$ 106,525	$ 246,795	$ 76,800
Baker	52,500	8,350	1,820	62,670	108,565	127,540
Beaverton	229,200	217,500	6,695	453,395	190,501	165,770
Bend	32,000	19,500	6,750	58,250	101,400	121,305
Coos Bay	15,000	42,683	13,013	70,696	156,617	272,341
Corvallis	98,000	239,377	19,940	357,317	645,058	271,600
Eugene	606,190	65,175	141,175	812,540	638,255	672,467
Grants Pass	118,000	36,800	8,050	162,850	145,300	101,400
Hillsboro	48,600	584,700	9,970	643,270	131,912	255,660
Klamath Falls	68,500	3,300	19,200	91,000	46,700	146,770
La Grande	27,775	1,300	18,550	47,625	59,414	548,626
McMinnville	24,000	8,000	4,287	36,287	34,678	309,450
Medford	59,000	178,010	242,391	479,401	354,070	285,646
Milwaukie	94,100	.....	5,450	99,550	297,600	322,250
North Bend	72,784	76,203	6,300	157,287	68,520	18,092
Pendleton	46,000	400	10,825	57,225	97,372	144,475
Portland	625,850	1,070,690	977,530	2,674,070	5,082,895	3,410,965
Roseburg	6,000	19,620	26,147	51,767	219,425	393,569
Salem	179,875	820,830	134,395	1,135,100	267,734	519,824
Springfield	133,928	65,223	17,344	216,495	311,681	43,519
The Dalles	34,000	1,250	17,950	55,200	71,450	32,175
Clackamas County	560,400	99,025	27,400	686,825	1,639,325	519,661
Douglas County	49,720	261,020	4,000	314,740	147,352	29,422
Lane County	756,340	939,226	65,375	1,760,941	1,093,519	1,916,183
Marion County	381,855	21,850	20,950	427,655	745,880	571,609
Multnomah County	1,574,914	327,550	146,083	2,048,547	2,090,531	3,658,117
114 Other Communities	851,155	1,813,728	291,100	2,955,983	2,309,951	1,554,575
Totals	$6,806,686	$6,966,310	$2,248,215	$16,021,211	$17,302,501	$16,469,811